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Dorian et al.

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(54) **PLASMA CONCENTRATE APPARATUS AND METHOD**

(75) Inventors: **Randel Dorian**, San Diego, CA (US);
Richard Wood Storrs, San Francisco, CA (US)

(73) Assignee: **Hanuman LLC**, San Francisco, CA (US)

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Primary Examiner—John Kim

(74) *Attorney, Agent, or Firm*—William B. Walker

(57) ABSTRACT

A plasma concentrator for producing plasma concentrate from a plasma from which erythrocytes have been substantially removed. The device comprises a concentrating chamber having an inlet port and an concentrate outlet, the concentrating chamber containing hydrogel beads and at least one inert agitator; and a concentrate chamber having an inlet communicating with the concentrator outlet through a filter, and having an plasma concentrate outlet port. A process for producing plasma concentrate from plasma from which erythrocytes have been substantially removed, comprising the steps of a) moving the plasma into a concentrating chamber containing hydrogel beads and an agitator to form a hydrogel bead-plasma mixture; b) causing the agitator to stir the hydrogel bead-plasma mixture, facilitating absorption of water by the beads from the plasma, until a hydrogel bead-plasma concentrate is formed; and c) separating the plasma concentrate from the hydrogel beads by passing the plasma concentrate through a filter. The concentrator can be one or more syringe devices coupled for multiple concentrations.

29 Claims, 6 Drawing Sheets

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